

Design and Technology Curriculum Map



Students are required to select an appropriate theme from a list provided by the exam board and produce a portfolio to show their design journey in preparation for the practical exam.



FOOD
Food science investigation Task (15%)
Externally issued food investigation task which requires students to research, predict, plan and evaluate a scientific principle.

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GRAPHICS
Specialist techniques and processes, including typography, illustration, digital photography, hand rendered working methods, digital working methods, pencil, pen and ink, pen and wash, crayon, and other graphic media, watercolour, gouache and acrylic paint, layout materials, digital media, printmaking and mixed media are explored.



PRODUCT DESIGN
Students will begin their NEA after May half term; the contexts are released from the exam board on June 1st.



TEXTILES
Students select from and further develop textile skills, investigating texture, use of textiles in today's world and designing for the future/

FOOD
Students master practical skills learnt in KS3 as well as advanced cooking and preparation techniques such as pastry making, setting a mixture and exploring different raising agents.

FOOD
Section A – students learn in detail about the principles that underpin diet, health and nutrition.
Section B – Students learn about food source & supply, food processing & production as well as food security & factors linked to food choice.
Section C – Students delve into the world of food science and look at why certain ingredients perform in a particular chemical or functional way. They undertake focused research and predict outcomes of investigations based on knowledge and understanding.

PRODUCT DESIGN

Students will design and make a Bluetooth speaker. This project is designed to be a refresher on many skills, processes and techniques covered in KS3. They will also be introduced to many other skills that students will then be able to combine into their coursework project for their NEA.



Students in Year 10 begin the GCSE course by developing their knowledge and practical skills in a range of different areas such as communication graphics, design for print, advertising and branding, illustration, packaging design, typography, interactive design, signage and exhibition graphics.



GRAPHICS
Students will cover all of the theory content this includes new and emerging technologies, energy storage and generation, smart and modern materials, mechanical devices, electronic systems, programmable components, metals, paper and boards, polymers and textiles. They will also cover timbers, which is their specialism. This is worth 60% of their exam.

PRODUCT DESIGN

- FOOD PREPARATION AND NUTRITION
- GRAPHIC COMMUNICATION
- PRODUCT DESIGN
- TEXTILES

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GCSE - Students can study one or more Design and Technology subjects and begin their courses:



With greater independence students apply new and prior learning to select the most appropriate tools, techniques, materials and processes and combine these to create a professional-looking vinyl album cover for music/a band of their own choice.

GRAPHICS – Vinyl Record Cover

Students will learn how to use a sewing machine and to explore applique. They will then write a design brief for an equipment roll based on one of three artists: Bob and Roberta Smith, Michael Craig Martin or Yinka Ilori. Students will then design and make an equipment roll to fulfil this brief.



TEXTILES – Not Lost

FOOD TECHNOLOGY – Advanced Skills

Students consolidate their practical skills and apply these to more complex, time restricted dishes. They learn about why we need food, factors that affect food choice and the impact of different macro and micronutrients in the body.

PRODUCT DESIGN - Team work

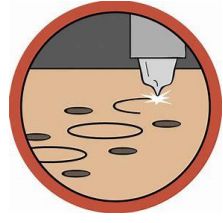
Students produce a product based on a child's toy working in a team using skills, processes and techniques to become independent learners.

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GRAPHICS - Film Promotion



A film of their choice inspires students to generate their own original ideas for merchandise. They are introduced to digital image editing software and learn about the process of sublimation printing.



Introduction to electronic circuits, components and soldering to produce a night light engraved using a CNC laser cutter with a design of their choice.

PRODUCT DESIGN - Night Light



FOOD TECHNOLOGY Intermediate skills

Students build on their practical skills from year 7 and apply these to more complex meals. They learn about where food comes from and explore a range of cuisines from around the world.

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GRAPHICS – Typography



Students learn how to work safely and hygienically in a FOOD environment through food practical lessons. They study food hygiene, temperature control, food labelling and are introduced to the eat well guide.

FOOD TECHNOLOGY – Basic Skills

PRODUCT DESIGN – Robot Desk Tidy

Students are introduced to PRODUCT DESIGN learning about timbers, properties and stock form including how to cut, shape and finish resulting in an amazing desk tidy.



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